National Institute of Environmental Health Sciences

The impacts of climate change on three health outcomes: Temperature-related mortality and hospitalisations, salmonellosis and other bacterial gastroenteritis, and population at risk from dengue

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Year: 2008
Series: Garnaut Climate Change Review
Publisher: Garnaut Climate Change Review (S.I.)

Abstract:

Climate change will affect the health of Australians over this century in many ways. Some impacts will become evident before others. Some will occur via quite direct pathways (e.g. heatwaves and death); others will occur via indirect pathways entailing disturbances of natural ecological systems (e.g. mosquito population range and activity) or disruption to livelihoods and communities (e.g. mental health consequences of prolonged droughts and regional drying trends). Most health impacts will occur at different levels among regions and population sub-groups, reflecting the influence of environment, socioeconomic circumstances, infrastructural and institutional resources, and local preventive (adaptive) strategies on the patterns of disease. The likely health impacts are many and varied. The main health risks in Australia from climate change include: health impacts of weather disasters (floods, storms, cyclones, bushfires, etc.), health impacts of temperature extremes, including heatwaves, mosquito-borne infectious diseases (e.g. dengue fever, Ross River virus disease), food-borne infectious diseases (including those due to Salmonella, Campylobacter and many other microbes), water-borne infectious diseases, and other health risks from poor water quality, diminished food availability: yields, costs/affordability, nutritional consequences, increases in urban air pollution (e.g. ozone), and the interaction of this environmental health hazard with meteorological conditions, changes in aeroallergens (spores, pollens), potentially exacerbating asthma and other allergic respiratory diseases, mental health consequences of social, economic and demographic dislocations (e.g. in parts of rural Australia, and via disruptions to traditional ways of living in remote Indigenous communities) At this stage of research and understanding, and in context of available time and resources, it is only possible to include a minority of those anticipated health impacts in this quantitative modelling exercise.

Source:
http://garnautreview.org.au/CA25734E0016A131/WebObj/03-AThreehealthoutcomes/$File/03-A%20Three%20health%20outcomes.pd

Resource Description

Climate Scenario :

specification of climate scenario (set of assumptions about future states related to climate)

Special Report on Emissions Scenarios (SRES), Other Climate Scenario

Special Report on Emissions Scenarios (SRES) Scenario: SRES A1

Other Climate Scenario: A1FI

Early Warning System:

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

A focus of content

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Temperature

Temperature: Extreme Heat

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Australasia

Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease, Injury

Infectious Disease: Foodborne/Waterborne Disease, Vectorborne Disease

Foodborne/Waterborne Disease: Salmonellosis

Foodborne/Waterborne Disease (other): Bacterial gastroenteritis

Vectorborne Disease: Mosquito-borne Disease

Mosquito-borne Disease: Dengue

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Model/Methodology:

type of model used or methodology development is a focus of resource

Outcome Change Prediction

Population of Concern: A focus of content

Population of Concern:

populations at particular risk or vulnerability to climate change impacts

Children, Elderly, Low Socioeconomic Status

Resource Type:

format or standard characteristic of resource

Research Article

Timescale:

time period studied

Long-Term (>50 years)

Vulnerability/Impact Assessment:

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content